Appendix I – List of Acronyms

Acronym	Term
ADS	Automated Directives System
BA	Budget authority
CBO	Congressional Budget Office (Legislative Branch)
CFO	USAID Chief Financial Officer
CN	Congressional Notification
CP	Congressional Presentation
CRB	Credit Review Board
CSO	Credit Supervisory Officer
DCA	Development Credit Authority
EGAT	Bureau for Economic Growth, Agriculture and Trade
EGAT/DC	Office of Development Credit (ODC)
FAA	Foreign Assistance Act of 1961
FCRA	Federal Credit Reform Act of 1990
FI	Financial Institution
GAO	General Accounting Office
GC	Office of the General Counsel
GPRA	Government Performance and Results Act
IOP	Investment Opportunity Proposal
LPA	Bureau for Legislative and Public Affairs
M	Bureau for Management
M/CFO	Chief Financial Officer
M/FM/CAR/FC	Funds Control
M/FM/LM	Office of Financial Management, Loan Management Division
MOV	Maintenance of Value
NGO	Non-Government Organization
NPD	Notice of Payment Due
ODC	Office of Development Credit (same as EGAT/DC)
OMB	Office of Management and Budget (Executive Branch)
OU	Operating Unit
PPC/B	Office of Budget, Bureau of Program and Policy Coordination
PTA	Paying and Transfer Agent
PVO	Private Voluntary Organization
QLS	Qualifying Loan Schedule
RLA	Regional Legal Advisor
SGL	Standard General Ledger
SO	Strategic Objective
SSO	Strategic Support Objective
TN	Technical Notification
TR	Transaction Report

GLOSSARY OF TERMS

Action Memorandum
The "Action Memo" is the key document for a DCA activity design and origination process. The document provides a brief overview of the activity and references the following attachments: development, financial viability, and economic viability analyses; risk assessment; financial monitoring plan; fee justification; and the subsidy cost calculation. The Action Memo serves as a standardized cover letter for presentation to the Credit Review Board.

CAMELS Analysis
A type of credit risk analysis developed by U.S. financial regulatory agencies to evaluate six traditional factors considered to be most important in the operation of a financial institution - Capital adequacy (C); Asset quality (A); Management (M); Earnings (E); Liquidity (L); Sensitivity (S).

Credit Review Board (CRB)
The Credit Review Board (CRB) includes representatives from the USAID credit programs, General Counsel, regional bureaus, and the financial loan management divisions. The CRB recommends the subsidy cost of each proposed DCA activity for the USAID Chief Financial Officer's final approval. The CRB also recommends policies and procedures designed to assure the financial soundness of all USAID credit activities, including DCA.

Development Analysis
Along with the Economic and Financial Viability analyses, DCA projects must be characterized by development objectives aligned with the strategic objectives of a particular USAID Mission / Bureau. This analysis is completed during the project design phase and is included in the initial concept paper and Action Memorandum.

Discounted Cash Flows (DCF)
A financial analysis tool that projects future cash inflows and outflows and considers the time value of money, reducing all future cash flows to their present value based on interest rates for similar transactions.

Economic Viability Analysis
In addition to the Development and Financial Viability Analyses, Economic Viability Analysis indicates that a proposed DCA activity addresses a market imperfection, does not supercede available private financing, and that USAID's financing support role is as a "lender of last resort."

Financial Viability Analysis
The third analysis that a DCA activity must pass (see also Developmental and Economic Viability Analysis) ensures that the activity earns, or is projected to earn, sufficient income to cover operating costs, loan payments, and reserves.

Inter-Agency Country Risk Assessment System (ICRAS)
A sovereign creditworthiness rating schedule which classifies risk levels, developed by U.S. financial regulatory institutions, the Export-Import Bank of the U.S., USAID, and the U.S. Department of State.

Internal Rate of Return (IRR)
The interest (discount) rate at which the present value of an investment in a project is zero. When this IRR exceeds the prevailing interest rate, the project is deemed to be an attractive investment.

Loan (Direct Loan)
A direct loan is a contract to provide U.S. Government money to a borrower. This differs from a grant in that the borrower agrees to repay the U.S. Government both principal and interest at predetermined rates and intervals over a fixed period of time.

Loan Guarantee (LG)
A loan guarantee is a contract between the U.S. Government and a lender (usually a financial institution) whereby the U.S. Government assures repayment to the lender in the case of default by the borrower. The U.S. Government will only disburse funds to the lender if, and when, a borrower is unable or unwilling to repay the underlying loan.

Loan Portfolio Guarantee (LPG)
A loan portfolio guarantee is a mechanism for sharing risk and financing multiple borrowers. Instead of the repayment risk of one borrower, the repayment risk is spread among a number of similar borrowers. A local intermediary financial institution (IFI) establishes a pool of loan funds with credit and underwriting standards to be met by multiple borrowers.

Net Present Value (NPV)
The present value of all cash outflows (investments) and inflows (returns) of a project at a given interest (discount) rate. Since the streams of expenditures and receipts occur over a period of time, they are discounted to account for the time dimension, using the market interest rate or the financial cost of capital to the borrowing entity. When using the NPV, the selection criterion is to accept activities with NPV greater than zero.

Non-Sovereign
A non-sovereign loan involves organizations such as private financial institutions, private businesses, municipalities, or local authorities whose loans are not explicitly guaranteed by sovereign (state or central) governments. As such, the non-sovereign transaction (loan or loan guarantee) does not benefit from a host government's full faith pledge of repayment, and therefore, a detailed credit risk assessment of the activity is required.

Office of Development Credit (ODC)
The ODC in USAID/Washington provides technical expertise and analytical support to USAID Missions and Bureaus. The Office promotes, administers, and monitors DCA activities and other USAID credit programs.

Portable Loan Guarantee
Portable guarantees are reserved for potential DCA borrowers that need assistance in accessing commercial loans. USAID provides the commitment of a loan guarantee to the borrower.

Subsequently, the borrower can secure private sector loan financing at competitive terms from a financial institution that meets USAID criteria, e.g. a minimum investment grade or satisfactory CAMELS rating.

Risk Assessment
A risk assessment involves analyzing the financial, economic, market, and political aspects of a transaction to determine the probability of a loan default. Usually this will include the creditworthiness of the borrower and the intermediary (where applicable), country macroeconomic issues, the structure of the transaction, and the presence of risk mitigating factors. These are summarized in the WARF score.

Sovereign Risk
Risk undertaken or backed by the full faith and credit of a sovereign nation.

Subsidy Cost
It is useful to think of the credit subsidy cost as a type of loan loss reserve in the case of default, or as a type of insurance premium that is paid whether or not an event occurs. The OMB-approved subsidy model takes into account the size, the term and fee structure of the DCA guarantee. These factors affect the overall cost to the Mission. Pursuant to Section 502(5) of the Federal Credit Reform Act of 1990, the costs of all direct loan and loan guarantee programs of the Federal Government are estimated for budget and appropriation purposes, at their approximate cost, expressed in discounted present value terms.

Subsidy Mitigation
Certain risk elements can be either reduced or eliminated depending on the credit agreement. Examples of subsidy mitigation include pledged collateral, escrow accounts, and counter guarantees.

Weighted Average Risk Factor (WARF)
The WARF scoring of a DCA project represents the overall estimated credit risk of the project based on an ordinal scale of 1 to 5. The four risk categories included in the WARF are: country risk, lender risk, borrower risk, and transaction risk. Higher WARF scores denote higher credit risk.

SAMPLE CONCEPT PAPER
USAID / SOUTH AFRICA

I. Project Description

USAID\South Africa proposes to utilize DCA credit authority to raise private capital to support the redevelopment of the largest vacant site in the Johannesburg inner city core for the provision of low to moderate-income residential housing in a mixed-use development. The program is consistent with USAID\South Africa's objectives and with the redevelopment program being guided and supported by the Greater Johannesburg Metropolitan Council (GJMC). The implementing agent, the Johannesburg Housing Company, is a non-profit corporation, which has a proven track record of delivering affordable housing to the inner city.

The significance of this proposed program extends far beyond the specific project. Johannesburg is the economic and political center of South Africa, and more importantly, Southern Africa. Johannesburg is in the midst of a major effort to recover from wrenching economic, social and demographic changes following the end of the apartheid government in 1994. One of the immediate effects of the political change was the movement of large numbers of homeless and unemployed black South Africans into Johannesburg. Concurrently, upper income residents and businesses migrated to the northern suburbs leaving the central core vacant and under utilized. The inner city became the realm of the poor, unemployed and most desperate of South African citizens. Downtown Johannesburg took on the appearance of a derelict area devoid of normal urban activity after the end of the workday, not unlike other major urban centers in North America or Europe, which experienced significant economic decline.

Over 10% of South Africa's GDP is derived from the GJMC area and the revitalization of the inner city is a key objective of the new political leadership recently elected in the December 2000 local government election. The GJMC has made the rehabilitation of central Johannesburg a priority and has initiated significant improvements in the management of the city, including its financial management and in restoring basic urban services. USAID has supported the financial and economic turnaround in Johannesburg with over $2 million in grant resources to improve service delivery and economic development. One element of this grant support has helped create the Johannesburg Development Authority which is spearheading the inner city redevelopment. In addition, USAID successfully concluded a $25 million DCA guaranty last year that enabled the Metro to borrow $25 million from the private sector for the provision of environmental infrastructure. This DCA proposal is supportive of that effort although a new partner has been identified.

The JHC DCA proposal also complements work being undertaken by USAID\South Africa's Housing and Urban Environment Team (SO6) and the Democracy and Governance Strategic Objective (SO1). The latter is seeking to strengthen democratic local governance through policy reform, direct assistance to municipalities and network learning. SO1 is providing direct support to an inner city redevelopment initiative in the area which seeks to engage citizens in a participatory planning process that would improve the living environment and develop a sense of community in a neighborhood known for its high-crime, pollution and transient population. Taken together, the SO1 and SO6 initiatives would provide a synergistic approach to improving the quality of life for residents of the inner city.

Johannesburg Housing Company (JHC) was formed as a non profit company dedicated to revitalization of inner city Johannesburg. The Company was formed in the mid-1990's to assist in the regeneration of the inner city of Johannesburg through the provision of secure shelter, primarily through social or rental housing. To date, JHC has developed 10 properties, which is the home to over 3,000 downtown residents. Another two properties will be under construction by the middle of 2001 and these units will house an additional

1,200 residents. Over R42 million has already been invested in downtown properties by JHC. Vacancy rates on their properties are less than 5% and the collection rate exceeds 95%. While primarily donor funded, JHC is now entering the second phase of their development plan and moving to become more commercially viable and sustainable. In lieu of grant resources, JHC is seeking DCA authority to raise private sector capital for their newest and largest program to develop affordable shelter in inner city Johannesburg.

Other donors are also involved in the transformation program in Johannesburg and through the JHC. The European Union has provided significant grant funding to the Johannesburg Housing Company and DfID, the World Bank, and several other bilateral donors have supported the Metro's transformation.

The proposed JHC project is fully consistent with USAID/South Africa's Strategic Objective 6 in support of housing and urban environmental services. USAID/South Africa has pursued this objective for the past 10 years and has made over $265 million available in grant and credit resources. The Mission is recognized as a leader in the sector and has excellent contacts with local authorities and the private sector.

II. Structure of the Project

USAID\South Africa proposes to utilize the DCA program to support the largest residential and mixed-use development project in Johannesburg's inner city in the last 20 years. The project area, referred to as Brickfields, is located in Newtown which sits on the western edge of the Johannesburg inner city. On its eastern boundary is the financial district, characterized by high rise, modern buildings and the historic Diagonal Street precinct. The railway marshalling yards are to the north and the more residential areas of Fordsburg lies to the west. The light industrial area of Selby is located on the southern edge of the precinct. The area is well located in terms of the motorway and is in fact on the development axis between Soweto and Midrand. The land for the residential development has been made available by the GJMC

Newtown has historically always been a very mixed area, where people work, entertain and live. While this character has been under threat in recent years, the introduction of a critical mass of housing has been identified as the most significant intervention required to complement the economic interventions of the area. This has been widely acknowledged by all stakeholders and supported by international experience, which points to the importance of having economically active residents in the inner city as part of a successful urban renewal strategy. Housing is therefore a cornerstone of Newtown's and the inner city's redevelopment strategy. Greater Newtown has all the necessary characteristics to support inner city rental or social housing. It offers the unique opportunity to introduce a mix of residential units and types in close association with economic opportunities. It also offers opportunities for greenfields development as well as the conversion of existing buildings (brownfield development).

The Brickfields residential development will include 750 units in the form of three story walk-ups arranged in a courtyard environment with semi-private spaces, including social facilities. The strong emphasis on mixed-use development and the integration of land uses is in accordance with national, provincial and local planning policy and has the support of the Council. It is estimated that over 3,000 individuals will reside in the Brickfields development, making it the single largest concentration of residential property in the inner city.

Total project costs are estimated to be R63 million (approx. $8 million). JHC is raising R20 million ($2.5 million) in equity and that fundraising activity is ongoing. An additional R4.7 million ($600,000) in government subsidies has already been committed under the national government's housing subsidy scheme. The final portion of financing is the balance of R38 million ($4.85 million) in the form of a private, commercial loan.

The DCA program would guaranty up to 50% of principal and interest of this loan of R38 million. Thus, the AID liability on the JHC DCA guaranty would not exceed $3 million. We anticipate that payments would be made quarterly and the principal would decrease over the life of the loan which would be 10 years. Fees

associated with the loan would be paid in South African Rand and any payouts to private lenders would also be paid in Rands. The construction period is 18 months and we anticipate monthly drawdowns. USAID\South Africa would hope to structure a grace period on principal payments during the construction period.

While an investor has not been selected, we intend to secure some form of a commitment from a private sector lender before closing the transaction. We fully anticipate that the lender will have a Fitch IBCA credit rating of BBB+ or better.

III. Funding Source for DCA Credit Subsidy

USAID\South Africa proposes to split fund the subsidy costs associated with the JHC DCA transaction. We would request that two-thirds of the credit reserve costs come from the urban environment appropriation and the balance of funds will be provided by the USAID\South Africa FY01 OYB budget under Strategic Objective 6, Housing and Urban Environment.

IV. Management Responsibility

Overall management responsibility will be provided by the USAID SO6 Team Leader or his/her representative. This will be undertaken in close coordination with the Director of G\EGAD\CI which will also assist with annual visits to South Africa as well as the review of audited financial statements provided by JHC.

V. Other Financial Support

USAID\South Africa is the largest donor in the housing and urban environment sector in South Africa and the largest donor providing support to the Greater Johannesburg Metropolitan Council. JHC is also a grantee although that grant is due to successfully end in October 31, 2001.

VI. Estimated Time Frame for Project Implementation

DCA appropriated funds in support of the urban environment and the SO6 DA funds to support this program would be obligated in a Guaranty Agreement by September 30, 2001. We anticipate a borrowing shortly thereafter but no later than May 30, 2002.

SAMPLE DEVELOPMENT ANALYSIS
USAID / UGANDA

The proposed DCA Loan Guarantee Program (LPG) strongly supports the USAID/Uganda Strategic Objective 7 "Expanded Sustainable Economic Opportunities for Rural Sector Growth". SO7 is supported by Intermediate Results (IRs) that identify increased food security for vulnerable populations, increased productivity of agricultural commodity and natural resource systems, increased competitiveness of enterprises in selected sectors, and improved enabling environment for broad-based growth. The DCA program will contribute to all four IRs, with a direct impact on the latter two - and an indirect but equally important impact on the first two.

SO7 places priority on assisting the GOU to reduce rural-based poverty by expanding economic opportunities and incomes. Two key outcomes are expected: increased enterprise incomes for farm enterprises, community and producer organizations, micro-, small-, and medium-enterprises (MSMEs) and industry-scale export sectors; and enhanced policy and institutional capacity that improves the enabling environment, allowing Ugandans to pursue sustainable economic activities.

The development of MSMEs is critical to the economic growth of Uganda. Roughly 800,000 microenterprises and small businesses account for nearly 90 percent of non-farm employment. A formal small and medium enterprise sector (10 or more employees) is emerging and playing an increasing role in providing inputs, market outlets, and support services. Small business is particularly active in the emerging service sector, which has grown from 36.6 percent to 40.2 percent of GDP in the past five years and encompasses such activities as eco-tourism, the cell phone industry, and information technology. In larger export sectors such as coffee and cut flowers, small manufacturing enterprises and business services providers are emerging in support of the industry. These enterprises, the so-called "missing middle", also need access to finance and support services to build their competitiveness.

Although liberalization measures in the country have ignited an economic revival, private sector growth is subject to numerous constraints. MSMEs have been among the hardest hit, as they are not served by the formal banking system and do not possess the management and technical skills necessary to expand their businesses. Through USAID/Uganda, there are currently varieties of innovative interventions underway that support the growth of the MSME sector in Uganda.

In January 2001, USAID/Uganda launched a pilot competitiveness activity called Competitive Private Enterprise and Trade Expansion (COMPETE), implemented by CARANA Corporation. During the April-June period, COMPETE established three sector working groups comprising individuals representing different stakeholders in each sector, including producers, processors, other intermediaries, exporters, representatives of sector associations, donor projects, and research and government institutions. The objective of the working groups is to forge public-private cooperation in implementing the action plans and develop self-sustaining leadership groups in each sector that can give long-term continuity to the competitiveness process.

The role of the government as a stakeholder and partner with these sectors was established through several alliances. At the highest level, the COMPETE team is working with a special Presidential Task Force on Export Competitiveness chaired by the Ministry of Finance, Planning and Economic Development. This allows COMPETE to position its project goals at the highest levels of government. Working collaboratively with USAID and the Task Force, the COMPETE team has been able to present its concepts and activities to the President and expects to continue this consultation during the next quarter. The Task Force is proposing

to the President the convening of a national Poverty Alleviation through Export Competitiveness Conference in November. The conference will focus national attention and resources on the needs of Uganda's economy to improve its export performance in world markets.

Intricately linked with COMPETE are two traditional USAID-funded development activities: Support for Private Enterprise Expansion and Development (SPEED), which supports economic growth through increased use of financial services by MSMEs; and Investment in Developing Export Agriculture (IDEA), which supports the growth and strengthening of SMEs involved in non-traditional exports.

Through its Medium-Term Competitive Strategy for the Private Sector (MTCS), the Government of Uganda (GOU) has placed high priority on improving the business environment for MSMEs. This strategy emphasizes the regulatory, financial, and legal reforms and infrastructure development that are required to remove constraints to growth among businesses of all sizes. Specific financial reforms that will be undertaken deal with the development of financial services suited to SME needs, including leasing, equity funds, and capital markets. For microfinance institutions (MFIs), the GOU seeks to develop a legal and regulatory framework specific to their needs, an interest rate policy, and a debt collection program. USAID/Uganda is committed to supporting the implementation of the MTCS.

The proposed concept envisions executing an LPG agreement with seven commercial banks in Uganda for a total authorized amount of $15 million with a guarantee ceiling of $7.5 million. Traditionally, most Ugandan banks and other providers of credit have focused on large multinational companies as their target customers. SME and agricultural business loan facilities have not been readily offered by lenders because of high delivery cost and poor past experience in these sectors. Lenders have had to rely almost exclusively on the value of collateral to support the loans, as they have not been provided adequate financial information to use proper cash flow analysis techniques in the loan appraisal process. Most SME and agricultural applicants cannot qualify because they lack acceptable security, and those few that do receive credit are often burdened with unreasonable repayment terms due to improperly structured loan facilities.

A November 2000 USAID-financed assessment of SME and agricultural lending conditions in Uganda indicated willingness on the part of bankers to expand their SME and agricultural portfolios. To do so, however, they must believe that the risks are reasonable.

The implementation of the DCA activity will improve the development impact of USAID to foster economic growth in the rural areas of Uganda, and will assist the GOU in its efforts to improve the country's business environment. DCA loan portfolio guarantees provide an excellent implementation phase support to complement ongoing programs to strengthen the MSME and agriculture sectors. Using wholesale loan portfolio guarantees, USAID, working together with the selected seven local commercial banks, will bring in the necessary investments to stimulate the growth of MSMEs. The result of this effort will be sustained economic growth in rural Uganda. Without expanding sustainable economic opportunities for rural sector growth, the goals of many USAID/Uganda programs, including those in other sectors that touch on rural sector growth peripherally, may not be met.

This DCA activity is an essential component of USAID/Uganda's Mission strategy in that it will contribute to the results of SO7, both directly and indirectly. Additionally, it will further cement USAID/Uganda's commitment to the GOU in implementing its Medium-term Competitive Strategy for the Private Sector.

SAMPLE ECONOMIC VIABILITY ANALYSIS
USAID / BRAZIL

The USAID Missions in Brazil and Mexico, in collaboration with G/ENV/EET, are proposing a DCA loan portfolio guarantee to support the establishment of an equity fund nominated Clean Tech Fund ("CTF" or "the Fund"), with a subordinated debt facility, which will make investments in renewable energy and clean production technologies.

The Fund will provide capital for innovative small and medium enterprises (SMEs) and other companies in MIF-eligible countries in Latin America that utilize clean technologies to reduce the need for fossil fuel and fossil-based input use. The Fund will be active in all MIF-eligible countries in the region, but the DCA component to be supported by USAID will only be used in USAID assisted countries. As the largest and most important economy in the region, Brazil will receive up to 45% of the Clean Tech Fund investments, and Mexico is expected to receive 45% as well. The remaining 10% will go to other USAID-assisted countries in the LAC region (subject to the approval of the Mission in each country).

The Fund will provide four products to eligible SMEs: (1) equity for established companies willing to adopt cleaner technologies; (2) grants to stimulate start-up companies and promote necessary research and business planning prior to capital investment; (3) debt financing for working capital and capital investments in clean technology to supplement equity infusions; and (4) resources to purchase carbon offsets from investee companies. The DCA loan guarantee will only be used to support the debt financing aspect of this Fund.

The Fund, to be administered by A2R and Econergy, will have an equity component ranging from US$ 20-35 million, supplemented by US$ 3-5 million in grant funds available for business plan development and technical assistance to development potential investments. The equity component will be leveraged 1-to-1 by a debt facility in the range of US$ 20-35 million. Specifically, DCA will be used in this case to support the debt facility and attract private capital for on-lending to eligible projects.

Eligible sectors include: energy efficiency, renewable energy, pollution prevention/recycling and transportation efficiency. The Fund will have a capitalization of US$ 20-35 million for investments in small to medium-size enterprises (SMEs). SMEs are companies with annual turnover of up to US$ 10 million and less than 100 employees) in Latin America. Most of the projects to be guaranteed by the DCA are expected to be in the key markets of Brazil and Mexico, with lesser activity possible in other LAC countries.

1. THE PROPOSED ACTIVITY WILL ADDRESS IN-COUNTRY MARKET IMPERFECTIONS

A. General Background

The recent increases in energy efficiency, renewable energy, pollution prevention and transportation efficiency is being driven by a variety of factors. For example, greater exposure to international markets, especially Europe and North America, is putting greater pressure on industries in the region to achieve ISO certification in order to penetrate markets in western countries. Because of this exposure to international markets and higher standards for environmental quality, as well as community participation and improved democratic processes, governments in Latin America have been increasingly supportive of the market-based and public interest trend toward higher environmental quality standards, especially in regards to pollution control, recycling, energy efficiency, renewable energy, and transport efficiency.

In addition to such industry pressures, the recent increase in fossil fuel prices, and drought related shortages in hydroelectric power, has led companies to conserve and diversify their energy resources. Many Latin American countries are also in the process of deregulation and privatization of their energy sector, resulting in increased costs for energy, water and other inputs.

But, in spite of this increasing demand, the scarcity of capital has prevented significant changes in the number of companies implementing clean energy technologies and industrial processes. Although some national governments are supportive of the concept of promoting clean and/or renewable technologies and practices, the instruments needed to catalyze the necessary investments are often limited to the larger scale projects with the access to capital from multi-lateral development banks and large commercial international banks. This scarcity in capital has caused many companies to avoid making investments in these areas until they can find a way to access capital at acceptable interest rates.

B. Specific Market Imperfections

The macro-economic conditions found in most Latin American countries are gradually becoming more closely aligned with free and open market principles, but market imperfections that impede clean and adequate energy supplies are still common. These market imperfections have resulted in insufficient production, uneven access to energy services (in both socio-economic and geographic terms), and insufficient capital for new and innovative sustainable energy technologies and energy efficiency efforts. The DCA/Clean Tech Fund is meant to address these market imperfections.

Several examples of market imperfections that are impeding clean and efficient electricity generation and distribution across the region are highlighted below:

- In *Brazil*, demand for electricity has outpaced supply by 20 percent for the last few years. The recent rationing program in the country is the result of these chronically low electricity supplies. And although the central government is actively engaged in increasing production, the reform of the Government's national investment program has been moving at a slower pace than that of the growth in electricity demand. Since 1991, electricity consumption growth in Brazil, which has averaged 4.1 percent, has consistently outpaced annual generation capacity growth of 3.3 percent. Between 1995 and 1999, this gap widened with economic stability from the Real Plan. Further aggravating the situation, rainfall in critical regions has remained far below average in many areas – which further reduces the Country's ability to increase electricity production from existing hydro-power facilities.
- In *Peru,* the rate of privatization of state-owned energy industries has slowed down considerably in the last couple of years, and much of the rural population lacks electricity and other basic infrastructure. Approximately one-half of the country's electricity comes from large-scale hydro-electric projects, with the rest coming from fuel oil and coal fired plants. However, the diverse geographic conditions have resulted in several unconnected grid systems. Consequently, there are opportunities to develop small-scale distributed energy systems that could utilize small-hydro power, agricultural biomass, and wind resources to provide energy to localized regions.
- In most *Latin American* countries, access to electricity is unreliable at best, and is non-existent in many rural and poor-urban areas. Countries need to expand their power production capacity, and diversify their energy sources away from the traditional large-scale hydro-power and fossil fuel projects, in order to alleviate power blackouts and rationing. Many Latin American countries also need to develop energy resources in rural off-grid areas, and address severe air and water contamination in the large urban centers.
- In *Mexico*, the electricity sector is at a crossroads. Although generation has increased rapidly over the past decade, supply is not expected to meet demand growth over the next two decades. Given current grid capacity constraints, regular shortfalls resulting in nationwide blackouts are predicted within the next two years. Failure to make substantial investments in generation capacity and

infrastructure could adversely affect the international competitiveness of Mexico's key industrial northern regions.

An example of a market imperfection that would be addressed by the Clean Tech Fund in general, and the DCA loan portfolio guaranty in particular, can be found in the market for renewable energy in Brazil. According to the Brazilian government, $25 billion in investment is required to deliver electricity to 25 million Brazilians who currently do not have access to it. The government hopes to fill much of the need for electricity in this "invisible market" through renewable energy resources, including solar, wind and small-hydro resources. Many of these resources can be used in rural applications. In addition, there is great potential for larger-scale grid-connected renewable energy, especially using biomass as fuel. Brazil has the world's largest sugar industry, with an estimated 4,200 MW of bagasse-fired co-generation potential. Brazil's electricity markets have been evolving rapidly in the last decade, with numerous privatizations and a move toward open access and pricing for electricity, but without a concurrent incentive regime promoting the increased use of renewable resources in the generation mix.

Similar dynamics are occurring in the renewable energy market in Mexico. While privatization of CFE, the state-owned utility monopoly, will not likely occur in the next few years, electricity supply shortages are raising prices. In fact, demand for electricity is growing by over 10% a year in certain regions, and additions of new capacity to CFE's existing 35,000 MW system are lagging behind schedule. Mexico has significant renewable energy resources that, combined with continued policy improvements and price rationalization, should create a positive environment for investment in the sector. Mexico possesses excellent wind resources and significant development potential in a number of regions throughout the country. Mexico's Institute of Electrical Research (IIE) estimates a total wind generation potential of at least 5,000 MW. This number may be conservative since limited work has been done to identify development areas and more accurately quantify the resource.

In summary, it is expected that the DCA project will increase the availability of capital for renewable technologies, as well as address constraints in the energy efficiency, pollution prevention, and transportation efficiency. This will help Latin American countries in meeting the regional trends of rapid urban population growth and industrialization, the enforcement of more stringent environmental regulations, and the growing interest in promoting cleaner transportation systems.

2. PRIVATE SECTOR FINANCING NOT DISPLACED

The DCA loan portfolio guarantee will not displace demand for capital and debt financing that could be fulfilled from the private sector. Private sector financing for the loan guarantee portion of the Clean Tech Fund is not likely to be available under terms that could be supported in this new industry. That is, private banks are often reluctant to finance what is perceived to be "new and unproven" approaches/technologies, and if they do agree to finance a project, the interest rates are usually prohibitive. Additionally, many countries in the region either have adopted macroeconomic policies that increase the cost of capital (i.e. making investments more expensive) or simply do not have the liquidity necessary to attract capital. As such, the relationship between the growing potential for clean technologies and the insufficient capital available for these investments highlights a private sector financing gap that this DCA guarantee will address.

More specifically, financial institutions in Latin America are unwilling to directly finance clean energy/energy efficiency projects because equipment tends to be dispersed, making collateralization difficult. In general, the commercial banking sector in these countries considers the risks too high and fails to perceive loans to clean technology projects as viable investments. And when financing can be obtained from the private sector, the instruments developed thus far focus primarily on large-scale projects, leaving a market gap in the private sector financing of small and medium clean technology investment opportunities. In contrast with these large scale projects, small and medium sized projects can be built faster and come on line to provide the needed energy in a relatively short time frame. A good example of these smaller scale projects are the co-generation

projects constructed by companies providing their own generators fueled by natural gas, diesel, oil, and biomass, such as sugar-cane residue – to provide energy for their own business. These projects are characterized by high initial capital costs to cover the lifetime supply of "fuel energy". In this manner, they are subject to the hurdles of long-term financing. The widely accepted standards of financing costs, procedures and timetables associated with large-scale project work against small to medium renewable projects.

In other words, Latin America generally lacks its own financial resources to provide the incentives and opportunities needed to stimulate innovation in small to medium sized clean and/or renewable energy technologies and industrial processes. A concerted effort by USAID and other donor agencies will reduce the financing hurdles for such projects, and will increase the number of projects initiated, and the overall quality and sustainability of the project portfolio, and accelerate the implementation, and reduce the cost of such projects in Latin America.

3. GUARANTOR OF LAST RESORT

Funding through the DCA Portable Guarantee will facilitate the success of the Clean Tech Fund. However, access to the DCA will not remove all risk for the project sponsors, investors, and other lenders, and it will not preclude the involvement of other guarantors. Clean Tech Fund managers designed the equity investment fund to be complemented by an equivalent level of debt from qualified local lending institutions. Local currency loans will be crucial to cover working capital expenses and debt financing needs, allowing the projects to pay back their loans in the same currency of the generated revenues. By increasing the leverage capacity of companies that partner with the Clean Tech Fund, DCA can be the catalyst for more expedient development of the targeted sectors.

Brazil offers a telling example of the critical role a DCA guarantee can play. Overall, Brazilian economic conditions are not favorable for local financial institutions to have confidence in long-term investments. For a project to be viable for financial institutions, companies need to agree to purchase electricity for 15 to 20 years. That is a daunting proposition for Brazilians, who have been made shy of long-term commitments by years of economic turmoil. A DCA guarantee will lessen the perceived risk of bankers to lend to a project with a long-term repayment horizon.

In the immediate term, the DCA portfolio guaranty supports long-term lending that would otherwise be extremely difficult to obtain in the private sector. USAID is acting as a guarantor of last resort in the absence of a competitive banking industry and other guarantee facilities. Over the longer term, USAID's participation in this initiative will demonstrate the efficacy and profitability of applying renewable energy sources to meet production and transportation needs, and will facilitate the development of a competitive capital market for environmentally sound and energy efficient projects.

4. SUMMARY

In conclusion, this economic analysis indicates that market imperfections that inhibit the development of small and medium sized energy projects exist in many Latin American countries, and these imperfections could be alleviated through the DCA loan guarantee. It is also extremely unlikely that this program would take the place of private sector investment, and therefore USAID is likely to be the guarantor of last resort.